REMARKS

The rejection of claims 1, 3, 4, 7, 8, 15 - 17, 20, 22, 24, 26, 29 and 30 under 35 USC 102(b) is respectfully traversed.

With respect to claims 20 - 31, Applicants readily agree that the use of a computer is known in the field.

With respect to claims 1, 20 and 24, Applicants disagree with the Examiner's interpretation of the Miyake reference.

Applicants agree that reducing correlation in the vertical and horizontal directions is known.

Applicants point out, however, that the Examiner has misinterpreted the passages cited in paragraph b) on page 3 of the Action. Fig. 8, cited by the Examiner, shows values MAX and MIN along a horizontal line, not along an oblique line. Applicants call the Examiner's attention to the coordinates of Fig. 8 (and all the similar Figs). On the axis, "y" is constant. Thus the graph is taken along a horizontal line, not along an oblique line, as required by claim 1. In

addition, the position of the center pixel is not interpolated, it is the value to be assigned to the pixel.

Thus, Applicants agree that Miyake shows linear interpolation of pixel value along the horizontal and vertical and also the use of a second path factoring in contrast that are inputs to a lookup table, but Applicants firmly maintain that there is no showing in Miyake of interpolation along an oblique direction.

Regarding claim 3, the Examiner has stated that "shows an interpolated point E or target pixel with respect to 4 neighboring pixels that determine where the point should be located" (Page 4, second paragraph).

Applicants call the Examiner's attention to Col 1, lines 22 - 26 of Miyake, which shows the same formula and refers to it on Col 1, line 23 as generating " a pixel value E"; i.e. the value of the pixel gray scale or equivalent.

Further, Fig. 30 of Miyake shows the result of the process applied to the data of Fig. 29. Applicants call the Examiner's attention to the fact that the pixel values of the data on the diagonal of Fig. 29 are

200, 200, 200 all the way from the upper left to lower right corner. In contrast, the result of the processing in Fig. 30 for the same pixels is: 200, 105, 200, 105, 200, 105, etc. It is obvious that this result cannot possibly be reached by interpolation along the oblique line.

Regarding claim 4, Applicants agree that a choice must be made when setting up the lookup table as to what weight will be given to contrast. Applicants disagree, however, that Miyake indicates that such a choice is exercised by the user. In order for the user to affect the contrast, there must be an adjustment that the user may vary. Applicants interpret the Miyake disclosure to indicate that the designer of the system will make that choice.

With regards to claims 7, 22 and 26, Applicants point out that there is no showing in Miyake of performing a linear interpolation along a direction that is not the vertical or horizontal. Indeed, as shown in the discussion of claim 3, Miyake's showing is incompatible with interpolation along the oblique (or strong correlated direction based on the oblique).

Thus the Examiner's discussion of Fig. 27 is not relevant because Fig. 30 has shown that the interpolation is not along the oblique.

The discussion of Fig. 2 is also not relevant because Fig. 2 shows only interpolation along the horizontal.

The parenthetical remark about interpolating point E does not contribute to the Examiner's argument because a point, by definition, does not show direction. As discussed above, the formula cited only computes the pixel value of E, not a direction along which interpolation is to be made.

With respect to claim 15, the specification discusses the rank order method in the fourth paragraph after [Preferred Embodiment] (Applicants' Attorney has a file that may have different pagination from that sent to the PTO).
Applicants disagree that such a method is shown in Miyake. In addition, the remarks above with respect to interpolation along the oblique also apply. Applicants also note that the Examiner states on page 7 that Miyake does not show rank order processing.

REJECTION UNDER 35 USC 103

The rejection of claims 2, 5, 21 and 25 under 35 USC 103(a) is respectfully traversed.

Regarding claim 2, the previous remarks as to claim 1 apply. Applicants maintain that Miyake does not show the limitations of claim1.

Further, Applicants readily agree with the Examiner that Miyake does not show rank order processing. Applicants also maintain that the calculation of a mean (which is what Miyake does in equation 1 even though he call it a median) is not the same as the rank order processing discussed above with respect to claim 15.

With respect to claim 5, Applicants maintain that the rank order processing discussed above with respect to claim 15 is not the same as that referenced in claim 5.

With respect to claim 10, the remarks above with respect to the lack of showing in Miyake of interpolation along the oblique apply.

Regarding claim 12, Applicants disagree that Miyake shows user control of a parameter of the operation. The look up table that the

Examiner refers to is simply a set of numbers. There is no description of an algorithm that would convert a user preference to a modified set of numbers.

With respect to claim 6, Applicants maintain that there is no motive to combine the two references because there is no indication that Choi's system, which is directed at a TV receiver with a fixed number of pixels would work in a system that is dedicated to changing the number of pixels. The problem addressed by the present invention - that of increasing the number of pixels and maintaining image quality does not exist in the system of Choi.

Further, a look up table is inherently fixed. Designers use a look up table because they cannot devise an algorithm to respond to changes in the system. Thus, there is no motive or reason in the references to suggest that a look up table could or should be devised to be "dynamic" i.e. having values that respond to a change in a parameter.

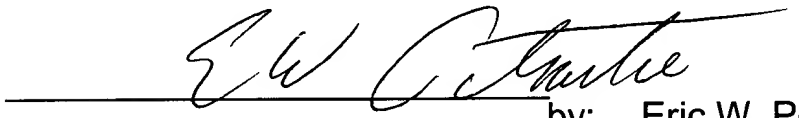
In addition, as remarked above, there is no suggestion of making the lookup table responsive to the user, rather than fixed by the system designer.

With respect to claims 9, 18, 23, 27 and 31, the same argument recurs as to the interpolation along oblique lines. As discussed above, Miyake does not show this. Tateishi also deals with orthogonal lines. Thus, there is no indication that the combination of Miyake and Tateishi would resemble the method or apparatus specified by the claims. In addition, Tateishi does not specify any particular method of reducing the bulge, while the claims do require the interpolation along the oblique.

In summary, Miyake does not teach the combination of a) reducing correlation in the vertical and horizontal and b) interpolating along the oblique that appears repeatedly in the claims.

For the foregoing reasons, allowance of the claims is respectfully solicited.

Respectfully submitted,



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